

ABSTRACT OF THE DISCLOSURE

To provide a multi-program processing system, which prioritizes reference and update of a block to be an object of rollback without waiting for the rollback being finished and can improve efficiency of processing a program when one file is simultaneously referred to and updated by a plurality of programs. Even if the block is being updated by another program, a file I/O section requests a journal for the block from the journal sharing section instead of reading the block from a data file, and transfers the contents of the block in a state before it is updated by another program to the program if the block is being rolled back. In response to an update request from the program, the file I/O section also refers the block exclusion section for the state of a block as mentioned above, and if another program does not perform neither reference nor update, the file I/O section causes the journal collecting section to save a block before update in the journal file from the data file as a journal, and the data file is updated.